

AMENDMENT

Please amend the application as indicated hereafter.

To the Claims:

1-5. (Cancelled)

6. (currently amended) A cascade driving circuit, ~~suitable~~ for a liquid crystal display (LCD), comprising:

a first driving circuit unit, for receiving a differential input signal and generating a first differential data signal for driving the LCD, and a first differential output signal; and

a second driving circuit unit, coupled to the first driving circuit unit, for receiving the first differential output signal and generating a second data signal for driving the LCD;

wherein the differential input signal after transient is amplified partially in a front part thereof, so as to generate the first differential output signal ~~the differential input signal is amplified for a first predetermined period when the differential input signal changes from a high level to a low level, or from the low level to the high level, and the first predetermined period is less than a first period of the differential input signal being in a steady state.~~

7. (currently amended) The cascade driving circuit according to 6, wherein the first driving circuit unit comprises:

a first differential receiver, for receiving the differential input signal and transmitting the differential input signal to a first differential transmitter;

~~[[a]]~~the first differential transmitter, coupled to the first differential receiver, for transmitting the differential input signal to a first differential signal amplifier; and

the first differential signal amplifier, coupled to the first differential transmitter, and
the differential input signal after transient is amplified partially in a front part thereof by the
first differential signal amplifier ~~and triggered to amplify the differential input signal for the~~
~~first predetermined period when the differential input signal changes from a high level to a~~
~~low level, or from the low level to the high level.~~

8. (currently amended) The cascade driving circuit according to 7, wherein the first differential transmitter comprises:

a first current source; and

a first transistor, a second transistor, a third transistor, and a fourth transistor, wherein a drain of the first transistor and a drain of the second transistor are coupled to the first current source, a source of the first transistor is coupled to a drain of the third transistor and a negative input end of the first differential signal amplifier, ~~gates of the second and third transistors are coupled to a positive output end of the first differential receiver, a~~
source of the second transistor is coupled to a drain of the fourth transistor and a positive input end of the first differential signal amplifier, and sources of the third and the fourth transistors are coupled to a ground voltage, ~~and gates of the first and fourth transistors are coupled to a negative output end of the first differential receiver.~~

9. (currently amended) The cascade driving circuit according to 7, wherein the first

differential signal amplifier comprises:

a second current source and a first ~~third~~ current source;

a first resistor and a second resistor, a second terminal of the first resistor and a second terminal of the second resistor are coupled to a ground voltage; and

a first sensor switch, a second sensor switch, a third sensor switch, and fourth sensor switch, a first terminal of the first sensor switch and a first terminal of the second sensor switch are coupled to the first ~~second~~ current source, a first terminal of the third sensor switch and a first terminal of the fourth sensor switch are coupled to the second ~~third~~ current source, a second terminal of the first sensor switch and a second terminal of the third sensor switch are coupled to a first terminal of the first resistor, ~~a positive out end of the first differential transmitter, and a positive output end of the first differential signal amplifier, and~~ a second terminal of the second sensor switch and a second terminal of the fourth sensor switch are coupled to the a first terminal of the second resistor, ~~a negative out end of the first differential transmitter, and a negative output end of the first differential signal amplifier;~~

wherein, the first and third switches are turned and the second the forth switches are turned off when the differential input signal after transient is amplified partially in a front part thereof by the first differential signal amplifier ~~the first, second, third, and fourth sensor switches are controlled by whether the input differential signal changes from the high level to the low level, or from the low level to the high level, or the input differential signal is in~~

~~the steady state.~~

10. (currently amended) The cascade driving circuit according to 6, further comprising:

a third driving circuit unit, coupled to the second driving circuit unit;

wherein the second driving circuit unit generates a second differential output signal, the third driving circuit unit receives the second differential output signal and generates a third data signal for driving the LCD; the first differential output signal after transient is amplified partially in a front part thereof, so as to generate the second differential output signal ~~the first differential output signal is amplified for a second predetermined period when the first differential output signal changes from a high level to a low level, or from the low level to the high level, the second predetermined period is less than a second period of the first differential output signal being in the steady state.~~